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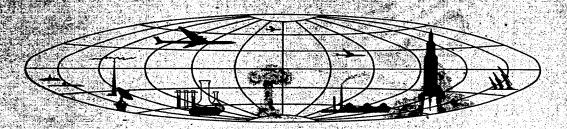
PHOTOGRAPHIC INTERPRETATION REPORT

LAUNCH COMPLEX A, KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTER, USSR





NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER



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PREFACE

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This photographic interpretation report has been prepared as a partial answer to a general requirement for a detailed analysis of the Kapustin Yar/Vladimirovka Missile Test Center. The purpose of this report is to present an analysis of Launch Complex A, one of several comprising the surface-to-surface missile facilities. The report is based on a detailed comparison of photography. An analysis of Launch Complex B has been published as

photography. An analysis of Launch Complex B has been published as NPIC/R-1162/63, and the analysis of Launch Complex C is in preparation.

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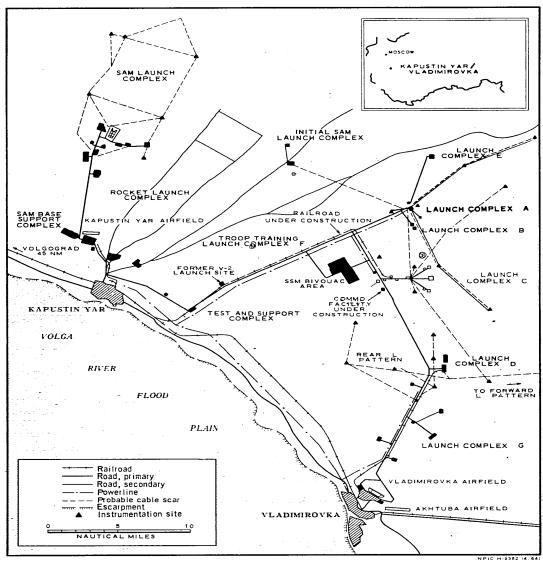


FIGURE 1. MAP SHOWING LOCATION OF KAPUSTIN YAR VLADIMIROVKA MISSILE TEST CENTER.

SUMMARY

The surface-to-surface missile (SSM) facilities at the Kapustin Yar 'Vladimirovka Missile Test Center (KY/Vlad MTC) are located primarily in the central part of the Missile Test Center and constitute its largest group of facilities. Nine complexes make up the group: Launch Complexes A, B, C, D, and E; Troop Training Launch Complexes F and G; the Rocket Launch Complex; and the Test and Support Complex. A former V-2 Launch Site, now abandoned, is also located in the area of the SSM facilities. All these complexes are supported from Kapustin Yar with the possible exception of Troop Training Launch Complex G, which may also receive support from Vladimirovka.

Launch Complex A of the KY/Vlad MTC is located at 48-42N 46-16E, 24 nautical miles (nm) east-northeast of Kapustin Yar an $^{\odot}$ 1.3 nm north of Launch Complex B (Figure 1).

On photography of the complex encompassed approximately 1,000 acres. It contained a launch area with two concrete pads, four possible troop training launch sites, a support area, a probable troop bivouac area, and a motor pool (Figure 2). In addition, operational and instrumentation facilities were located at several points within the complex and at positions up to 11 nm downrange to the east.

Photography of reveals

major changes in the complex (Figure 3). The original launch area appears to have been abandoned and has been intruded upon by the construction of a new launch area. The new area contains two large, rectangular, concrete-surfaced launch structures, road served by earth ramps at each end. Three additional possible troop training launch sites have been constructed, but all seven sites appear inactive at the time of the photography. The support area has been enlarged to include additional barracks, shops, a probable operational control center adjacent to the old support area, a power substation, a new road joining the new launch structures, and a fenced drive-through building.

Communications within the rangehead are probably effected by land lines. Probable cable scars lead from the probable operational control center through the motor pool to Launch Complex B, 1.3 nm to the south. Other probable cable scars connect with the initial SAM launch complex, 9 nm to the northwest (Figure 1). Water and power may be provided from outside the launch complex by underground lines that parallel the main road serving the complex from Kapustin Yar. Numerous probable cable scars, roads and trails, and extensive vehicle trackage connect the downrange instrumentation to the complex.

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LAUNCH AREA IN

The launch area, which contains two large concrete pads, is irregularly shaped, measures approximately 1,675 by 1,240 feet overall, and encompasses about 40 acres (Figures 2 and 4). It is completely enclosed by a double security fence and partially enclosed by a firebreak 35 feet wide. An internal network of all-weather

concrete roads, 25 feet wide and with wideradius turns, serves the area. Access to the area is provided by an improved all-weather road from the support area which enters the northwest corner of the launch area. A road still under construction provides a point of entry on the southwest side.

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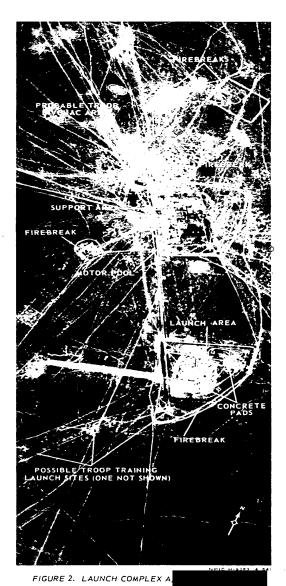






FIGURE 3. LAUNCH COMPLEX A.

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The centers of the launch pads are about 850 feet apart; although geometrically aligned and similar in size and shape, the pads have different associated facilities. The two pads and their related facilities will be arbitrarily designated Launch Site South-1A and Launch Site North-1A and will be discussed separately. In the following detailed description, facilities have been associated with one or the other of the pads primarily on the basis of proximity. The nearness of the pads to each other, however, precludes an exclusive association of every facility with a particular launch pad.

LAUNCH SITE SOUTH-1A

This site consists of a launch pad, a probable control bunker, several possible instrumentation positions, a utility building, two earth revetments, and a possible missile hold or servicing point. Extensive scarring and vehicle trackage also characterize the site.

The concrete launch pad (Figure 4) measures approximately 140 by 110 feet. Two unidentified objects are on the pad; one, located in the approximate center of the pad, measures 20 by 15 feet, and the other is more elongated, with one end close to the first object. Five vehicles are parked near the east edge of the pad. The resolution of this photography precludes determining whether the vehicles are on the pad or immediately adjacent to it.

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The probable control bunker is a semi-buried concrete structure located 190 feet north of the center of the launch pad. It measures with a dark area, centered on its top. The location of the entrance to the bunker is undeterminable from this photography.

Four possible instrumentation positions, each 15 feet in diameter, are located in the

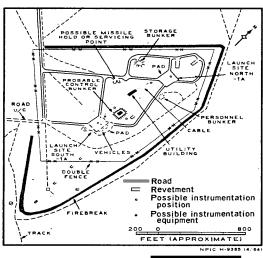


FIGURE 4. LAUNCH AREA,

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immediate area. One is near the southwest corner of the pad, 120 feet from the center. Two other positions are located on opposite sides of the probable control bunker, 165 feet apart: the eastern position is 275 feet northeast of the center of the pad, and the western position is 255 feet north of the center of the pad. The fourth position is 440 feet north of the western position and 685 feet north of the center of the pad. Cable lines extend from the fourth position and from the western position to the utility building. This is a single-story, gable-roofed structure, of light construction and with four vents

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Two lightly mounded earth reverments, both 35 by 15 feet and located 320 feet northeast and 100 feet north of the center of the pad, are associated with this site.

The possible missile hold or servicing point consists of two heavily mounded earth revetments, 60 by 20 feet and 40 by 20 feet, located 480 feet northwest of the center of the pad.

- 3 -

on its roof.

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25X1D A vehicle measuring trance to the point, and a probable cable scar extends from the vicinity of the point to the launch pad.

Six possible pieces of instrumentation equipment are located in the area.

LAUNCH SITE NORTH-1A

This site consists of a launch pad, two earth revetments, a storage bunker, and a personnel bunker. The possible missile hold or servicing point and the utility building described in conjunction with Launch Site South-1A probably serve this site also.

The concrete launch pad is 135 feet square

and has an unidentified object, 20 feet square, in its northern half.

The two earth revetments, which measure 70 by 20 feet and 75 by 25 feet, are heavily mounded and are located 275 feet north and 195 feet north-northwest of the center of the pad.

The storage bunker measures 70 by 55 feet and is located 330 feet west of the center of the pad. A possible vent, protrudes from its top.

The personnel bunker is located 250 feet southeast of the center of the pad, adjacent to the road connecting the launch pads. The bunker measures and is positioned at the end of a sloping excavation, 80 by 20 feet, which faces the launch pad.

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LAUNCH AREA IN

25X1D Photography of reveals that

in the interim since extensive additions and changes have been made in the launch area (Figures 3 and 5). The concrete pads and their associated facilities, which were

25X1D the dominant features in appear to have been abandoned. Two large earth-mounded

been abandoned. Two large earth-mounded launch structures, one of which partially intrudes on the launch area, have been constructed. The structures are rectangular and capped by elevated concrete platforms having large circular holes in their centers. The platforms are served by ramps which form the long axes of the structures, and which are oriented northwest-southeast. In the following detailed descriptions these launch structures and their associated facilities will be arbitrarily referred

to as Launch Site South-2A and Launch Site
North-2A. These two sites do not correspond
to the Launch Site South-1A and the Launch Site
25X1D North-1A of

LAUNCH SITE SOUTH-2A

An all-weather road from the support area terminates at this site and is connected to both ends of the launch structure with wide, sweeping turns. The entire launch structure, including ramps, is 575 feet long, 110 feet wide, and high. The earth ramps slope up to a concrete platform. which surmounts the structure. A hole feet in diameter is located approximately in the center of the platform (Figures 5 and 6). Earth has been banked

Two roadways 15 feet wide follow the profile of the structure along both edges. The roadway along the western edge levels off below the concrete platform and widens into a level area measuring approximately 200 by 40 feet. Several small unidentified objects (not shown) are located in this area. A third roadway runs up the center of the northern ramp and ends at the edge of

along both sides of the structure.

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the concrete platform. Between this roadway and the roadway along the eastern edge of the ramp is a depression running the length of the ramp. This depression, which begins at ground level and reaches a depth of at its terminus at the edge of the platform, widens

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TO SUPPORT DEPRESSION BORROW PROBABLE CONDUIT ONCRETE PLATFORM SUPPLIES EQUIPMENT LAUNCH SITE SOUTH-2A DEPRESSION TRENCH -REVETMENT -EXCAVATION CONCRETE Fence Pipeline Inclined pit Tower 500 1000 FEET (APPROXIMATE)

from 20 feet at the platform to 25 feet at ground level.

An unidentified object is located at the head of the depression, next to the platform. No similar depression exists in the southern ramp. Two objects are located on the concrete platform, one possibly a crane and the other unidentifiable. At the top of the southern ramp and adjacent to the platform is another unidentified object.

Adjoining the northern end of the launch structure are three inclined pits with their deeper ends facing the launch structure, two measuring 75 by 25 feet and the third 70 by 10 feet; an excavation measuring 25 by 15 feet is located between two of the pits. A pattern of ground scars connects two of the pits to each other, to the launch structure, and to another structure, approximately 30 by 20 feet, located approximately 360 feet northeast of the launch structure.

Four self-supporting lattice towers are located to the west of the launch structure. Two of the towers are close to the structure and parallel its long axis. They are approximately high (the height of the structure) and 210 feet apart. The other two towers are approximately 250 feet away and are 35 feet high. These two towers align generally with the hole in the concrete platform. All four towers are similar in configuration, with platforms on two levels. There appear to be objects on the tops of the towers, but they are not identifiable. No similar towers are associated with the launch structure at Launch Site North-2A.

In the eastern bank of the launch structure and directly in line with the hole in the concrete platform is an opening approximately 15 feet wide. A trench, 65 by 10 feet; a revetment, 30 by 15 feet; and an excavation, are located at the foot of the embankment in front of the opening.

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FIGURE 5. LAUNCH AREA

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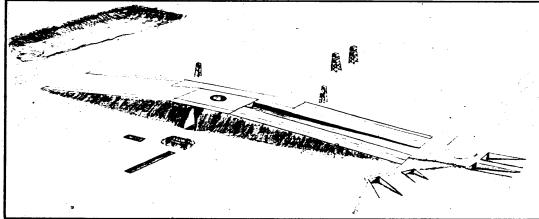


FIGURE 6. PERSPECTIVE VIEW OF LAUNCH SITE SOUTH-2A

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Two borrow pits measuring 315 \mathring{by} 180 feet and 375 by 180 feet are located immediately south of the launch structure. There is no evidence of security fencing around the site.

LAUNCH SITE NORTH-2A

This launch site is located on the southern boundary of the launch area, 2,700 feet north of Launch Site South-2A. The main feature of the present site is a large launch structure, 700 feet long (including ramps), 120 feet wide, and 30 feet high. Earthen ramps slope up to a concrete platform, measuring 100 by 85 feet, which surmounts the structure. A hole in diameter is located in the center of the platform (Figures 5 and 7). Earth has been banked along both sides of the structure.

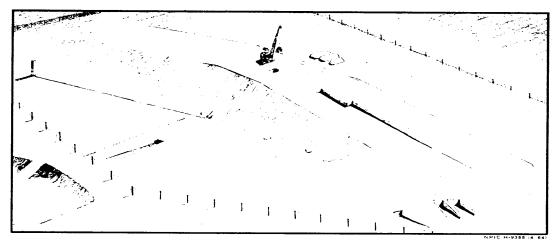
The all-weather road from the support area is connected to both ends of the structure by wide, sweeping turns. Two roadways, 15 feet wide, follow the profile of the launch structure along both edges. The roadway on the western edge

levels off pelow the concrete launch platform and widens into a level area which measures approximately 200 by 40 feet. Five unidentified objects (not shown) are located on this level. A third roadway runs up the center of the northern ramp and terminates at the launch platform. Between this roadway and the roadway along the eastern edge of the ramp is a depression running almost the length of the ramp. The depression begins at ground level and reaches a depth of at its terminus near the edge of the launch platform; it widens from 10 feet at the launch platform to 20 feet at ground level, and is 260 feet long.

Positioned near the hole in the concrete platform is a crane. Light standards (not shown) are also located at various points around the platform. Starting at the eastern edge of the platform and running down the embankment is a probable conduit, which at ground level angles 300 feet southeast and terminates in a towerlike structure 10 feet high and 5 feet square. On both sides of the probable conduit along the embank-

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FIGURE 7. PERSPECTIVE VIEW OF LAUNCH SITE NORTH-2A, DECEMBER 1959.

ment are walls 20 feet apart.

Three inclined pits with their deeper ends facing the launch structure are located adjacent to the northeast corner of the launch structure; two measure 80 by 20 feet and the third 70 by 10 feet. Located 170 feet from the eastern side of the launch structure is a trench measuring and beyond the trench is a borrow pit which measures 580 by 340 feet. A narrow earth scar runs from the borrow pit to the

faunch structure. An unidentified object or structure is at the base of the embankment on the eastern side of the launch structure. Along the western side of the launch structure and within the road pattern are a small building, three covered piles of supplies or equipment, and an unidentified object. Several unidentified objects are located at the feet of both ramps.

The site is enclosed by a security fence.

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POSSIBLE TROOP TRAINING LAUNCH SITES IN

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The photography of reveals four possible troop training launch sites southwest of the launch area (Figure 8). These sites (numbered 1, 2, 3, and 4) are positioned in a line and cover an area approximately one nm long and 500 feet wide. They are bounded on the south by Launch Complex B of the KY/Vlad MTC. Generally similar in configuration, the sites are separated from each other by 1,340 feet.

Each site consists of a concrete launch pad and several revetments; there are five revetments at Site 1 and six at each of the others. The revetments are located in the same relative position at all of the sites: one revetment is south of the pad, while the others are in two diverging lines north of the pad. The southern revetment always has its open end facing the pad, and the open ends of the northern

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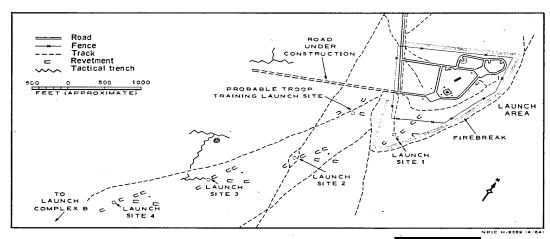


FIGURE 8. ARRANGEMENT OF POSSIBLE TROOP TRAINING LAUNCH SITES

revetments face away. At Sites 2, 3, and 4 an object or possibly a small revetment is located between the two northernmost revetments.

Site 1 differs from the other sites in that it is situated within the firebreak which protects the main launch area, the firebreak occupies the area where the fifth northern revetment would normally appear, and the most northerly revetment is isolated from the rest of the site by the security fence enclosing the launch area. Adja-

cent to the pad at Site 1 is an object long and wide. At Site 2 an object identical in size is in a vertical position on the pad. No similar objects are present at the other two sites, and no vehicles or equipment is present at any of the sites. Some trackage is visible around the launch pads, however.

A fifth area, a probable troop training launch site approximately 500 feet west of Site 1, consists of a pad and three small revetments.

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POSSIBLE TROOP TRAINING LAUNCH SITES IN

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Photography of reveals that between while the launch area was undergoing change, the possible troop training area was also affected, although all the sites appear inactive. The original Site 1 has disappeared, but Sites 2, 3, 4, and the probable site remain. Site 2 still has a vertical object on the pad; on this photography the object appears to be a tower.

Three new possible troop training launch sites have been constructed to the northeast of Launch Site North-2A (Figure 9). The sites (numbered 5, 6, and 7) extend from the launch area in a line approximately 2,320 feet long. Generally similar in configuration, the sites each consist of a triangular arrangement of three revetments. The distance from Site 5 to Site 6 is approximately 780 feet, and from Site

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DEPRESSION PLATFORM
ROAT BORROW

TRENCH
BORROW

PAD

TRENCH
BORROW

PROBABLE
CONCRETE
NORTH-2A

TACTICAL Itench
Revetment
Inclined pit
Road
Fence
Pipeline
Probable cable
TOWER
SUPPLIES/EQUIPMENT

TRENCH
SITE 5

CONCRETE
NORTH-2A

Tactical trench
Revetment
Inclined pit
Road
Fence
Pipeline
Probable cable
SCAT
SCAT
SOD 0 1000
FEET (APPROXIMATE)

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FIGURE 9. NEW POSSIBLE TROOP TRAINING LAUNCH SITES,

6 to Site 79 is approximately 950 feet. Single revetments are located approximately midway between Sites 5 and 6 and between Sites 6 and 7. Probable cable scars connect all three revetments at each site, and a probable cable scar runs from Site 5 to the Launch Site North-1A of

SUPPORT AREA

The support area supplies logistical and administrative support for Launch Complex A. In the area comprised a missile assembly and checkout facility, a possible thermal power plant, a storage section, an administration and housing section, and a motor pool. Photography of the reveals that the support area has more than doubled in size and now includes a fenced drive-through building, a power substation, and several new buildings within the administration and housing section (Figure 10). The probable operations control center, which is adjacent to

the support area, will be discussed in the instrumentation section of this report.

SUPPORT AREA IN

The support area covers approximately 50 acres and is protected by a firebreak 35 feet wide (Figure 2). Most of the facilities are located in a roughly rectangular area measuring 1,050 by 850 feet, 2,100 feet northwest of the launch area. The northwest and southeast sides of this main area are bounded by a solid fence, with wire fencing along the west side from the motor pool to a security building at the main entrance to the area. No fencing is apparent around the remainder of the main area. Positive identification of the water, power, and communications lines serving the area is not possible on this photography. A possible waterline parallels the main road from Kapustin Yar and can be traced to the entrance of the main support area. A large water storage standpipe located near the center of the motor pool high in diameter and with an estimated capacity of 250,000 gallons, indicates the probable extension of the waterline into the support area. Buried lines paralleling the main access road may supply the power and communications requirements of the area.

Missile Assembly and Checkout Facility. This facility is located adjacent to the west corner of the main support area. It contains a large drive-through building, three smaller structures or objects, and two or more possible vehicles. The area of the facility is enclosed by a solid fence measuring 240 by 130 feet (item 1, Figure 10 and Table 1). The enclosure has two entrances, one on the southwest and one on the northeast side. The southwest entrance is connected by a probable all-weather road to the main road from Kapustin Yar. Another road leads from the northeast entrance directly to

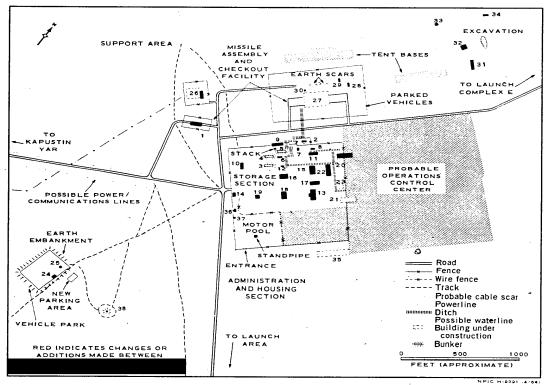
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FIGURE 10. SUPPORT AREA.

the launch area, bypassing other sections of the support area. The drive-through building is a step-roofed structure with possibly two functional sections: one measuring 100 by 40 feet and 35 feet high, with a floorspace of 4,000 square feet; and the other measuring 100 by 15 feet, single story, with a floorspace of 1,500 square feet.

Possible Thermal Power Plant. This facility is located just outside the solid fence on the northwest side of the main support area (item 2, Figure 10 and Table 1). The single-story

structure stands within an area which measures approximately 100 by 75 feet and is enclosed by a solid fence; an entrance to the area is on the southwest side. Buried pipelines radiate from the facility and connect with the missile assembly and checkout facility to the west and probably with the other components of the support area.

Storage Section. The storage section is located in the western corner of the main support area. The section contains four earth-mounded storage bunkers and three small storage build-

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Table 1. Description of Facilities, Support Area (Items are keyed to Figure 10)

Item	Description Function	Dimensions (ft)
1	Missile assembly and checkout	100 x 55 x 35h
	facility	
2	Probable thermal power plant	60 x 35
3	Storage bunker	80 x 30
4	Storage bunker	80 x 30
5	Storage bunker	50 x 30
6	Storage building	
7	Storage building	
8	Storage building	
9	Storage building	100 x 30
10	Storage building	65 x 25
11	Storage, administration building	50 x 30
12	Storage building	Undetermined
13	Administration headquarters	110 x 45
14	Security building	40 x 35
15	Housing	95×60
16	Administration building	70 x 60
17	Administration building	80×55
18	Administration building	70×55
19	Administration building	50×45
20	Housing	125 x 50
21	Housing under construction	120 x 40
22	Housing	125×35
23	Sheds	Undetermined
24	Utility building	40 x 30
25	Possible water tank	20×20
26	Power substation	85 x 20
27	Drive-through checkout build-	200×130
	ing under construction	
28	Utility building	60 x 15
29	Utility building	40 x 20
30	Utility building	30 x 20
31	Utility building	90 x 30
32	Shed	Undetermined
32	Utility building	Undetermined
34	Utility building	Undetermined
35	Possible building under	250 x 60
	construction	
36	Unidentified structure	Undetermined
37	Small shed	Undetermined
38	Possible bunker	Undetermined

ings. Three of the bunkers (items 3-5, Figure 10 and Table 1) appear identical. The fourth bunker, is located apart from the others and measures 40 feet square. The three storage buildings (items 6-8) vary in size from Several unidentified objects or vehicles are also present in the section, which is marked by considerable earth scarring and activity.

Administration and Housing Section. This section, located next to the storage section, con-

tains some of the largest buildings in the support area. A two-story barracks-type building (item 15, Figure 10 and Table 1) is thought to be capable of housing 115 personnel. An administration/headquarters-type building (item 13) measures 110 by 45 feet, with a gabled entranceway measuring 25 by 15 feet. A security building (item 14) with a small gabled extension is located at the main entrance to the support area. The section also contains four smaller buildings (items 16-19) and several small unidentified objects or structures.

Motor Pool. This section is located in the southern corner of the main support area. The southeast side is bounded by a solid fence with an entrance near its southern end (Figure 10). A wire fence with an entrance in the western corner bounds the other three sides. The large water storage standpipe mentioned previously is located near the center of the motor pool. The area is marked by considerable activity and contains approximately 25 parked vehicles. Also within this section are one long object, measand three smaller objects in uring a line, each measuring An unidentified structure and a small shed (items 36 and 37) are located within the area.

Probable Troop Bivouac Area. This area, which covers approximately one square nm, lies northwest of the main support area (Figure 2). It contains several possible campsites, a group of approximately 55 tent bases (Figure 10), numerous parked vehicles, and two unidentified sites. Two of the campsites, the parked vehicles, and the unidentified sites are protected by firebreaks (Figure 2). Tracks lead from this area to the main support area, the missile assembly and checkout facility, and the launch area.

Vehicle Park. This area is located 0.5 nm northwest of the launch area and 1,300 feet southwest of the main support area. The area is rectangular, covers approximately 3 acres,

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and is enclosed by an earth embankment and a firebreak (Figures 2 and 10). Tracks and probable cable scars connect the vehicle park with the main support area and with Launch Complex B to the south. The park contains a utility building (item 24, Figure 10 and Table 1) and 14 vehicles, each approximately 30 feet long. Ten unidentified objects, the largest of which measures 15 by 10 feet, are located near the western edge of the vehicle park.

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SUPPORT AREA IN

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Photography of reveals that the support area has been and is still undergoing expansion. The heart of the area and the major associated facilities have been enclosed by security fences (Figure 10).

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Power Substation. This facility, which has been added since is located 600 feet northwest of the main support area. The fenced area around the substation measures 220 by 195 feet; within the fence is a building (item 26, Figure 10 and Table 1) with an adjacent transformer yard. A powerline leads from this substation to Kapustin Yar.

New Missile Assembly and Checkout Facility. This new facility, still under construction, is located immediately north of the main support area; it encompasses about 9 acres and is fenced and road served. Within the fence is a large drive-through building under construction (item 27, Figure 10 and Table 1), which will have a total floorspace of 26,000 square feet when completed. Three other structures (items 28-30) are also present in the area. An excavation, 30 feet square, with two earth scars leading from it, is located near the drive-through building. About ten vehicles are located throughout the area.

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Outside the security fence are a group of 55 tent bases present in and a new group of 45

tent bases. Four randomly positioned buildings (items 31-34) and several vehicles are located near the new group of tent bases. An open ditch leads from the southern corner of the drivethrough building to the possible thermal power plant adjacent to the main support area.

Storage Section. Four buildings have been added to the storage section (items 9-12, Figure 10 and Table 1). One (item 9) has a detached stack next to its southeast side. Another hiproofed building (item 11) has replaced one of the four storage bunkers present in

Administration and Housing Section. Three buildings have been added to this section (items 20-22, Figure 10 and Table 1). Two of the new structures intersect the security fence. One (item 20) is a multistory, hip-roofed building. Another (item 21), also multistory, is still under construction.

Motor Pool. The motor pool has not changed since but contains approximately 50 vehicles and objects at the time of the photography.

Vehicle Park. Additional parking area has been cleared at the vehicle park, and a possible water tank (item 25, Figure 10 and Table 1) has been constructed. A small circular clearing surrounded by a firebreak and containing a possible bunker (item 38, Figure 10 and Table 1) is located approximately 500 feet east of the vehicle park.

Adjacent to the southeast fence of the main support area is a possible building under construction (item 35), with footings measuring 280 by 60 feet.

A continuation of the open ditch which runs from the new missile assembly and checkout facility to the possible thermal power plant extends through the storage and administration and housing sections and terminates at a building under construction in the probable operations control center.

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INSTRUMENTATION

The instrumentation at Launch Complex A consists of five and perhaps six major sites. These sites are the probable operations control center, A-1, four forward sites, A-2, A-3, A-4, and A-5, arranged in a modified "V" which opens to the east of Site A-1, and a probable rear site, A-6 (Figure 11). Probable cable scars with parallel roads connect the forward sites to Site A-1. The probable rear site, A-6, is connected by trail and possible cable to Site A-1 and is located approximately in line with the probable direction of fire, 1.7 nm west of Site A-1.

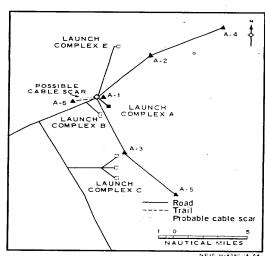


FIGURE 11. MAP SHOWING ARRANGEMENT OF INSTRUMENTATION SITES.

PROBABLE OPERATIONS CONTROL CENTER, A-1

The probable operations control center, which appears to be the focal point for probable cable scars and roads serving the other in-

strumentation sites, occupies the eastern corner and an area just northeast of the main support area (Figure 12). The site includes 18 buildings, two of which are under construction, a possible building under construction, at least 14 electronic vehicles/vans on hardstands, and a possible radar. The area is surrounded partly by a fence and partly by an earth embankment. A description of the features of the site follows. Items are keyed to Figure 12.

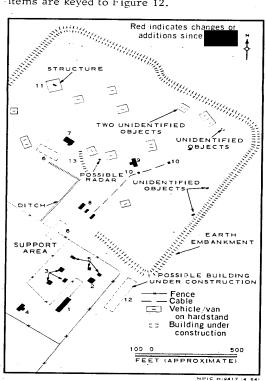


FIGURE 12. PROBABLE OPERATIONS CONTROL CENTER,

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Item 1. Probable main operations control building: single-story, measuring 115 by 25 feet, with a small two-story central section measuring

The long axis of this building, the largest completed building at this site, faces the launch area.

<u>Item 2</u>. Unidentified building; single-story, flat-roofed, 40 feet square.

Item 3. Three single-story, gable-roofed buildings; each about 35 feet square. Two of these structures, situated approximately 100 feet apart, are nearly surrounded by a grove of trees.

Item 4. Probable observation/control building; single-story, flat-roofed, measuring 50 by 25 feet. The building has a raised center wing with a parapet and a flat roof@the wing is offset slightly to the front, is approximately 20-25 feet high, and has an unidentified object on its roof.

 $\underline{\text{Item 5}}$. Three small buildings, two measuring 35 by 15 feet and the third measuring 15 feet square.

Item 6. Two large buildings under construction, measuring 135 by 50 feet and 150 by 50 feet.

ltem 7. Flat-roofed building, measuring 70 by 30 feet, with a small projecting wing.

Item 8. Three small buildings; one connected by cable to a small building in item 10.

Item 9. Flat-roofed building, measuring 70 by 20 feet, with small center wing.

Item 10. Two small buildings; each 10 feet square, connected by ditch and cable.

Item 11. Small structure, measuring 20 by 10 feet, on hardstand.

<u>Item 12</u>. Possible building, measuring 280 by 60 feet, under construction (same as item 35, Figure 10 and Table 1).

Item 13. Nine vehicles/vans parked in a row.

Between a number of additions and changes were made, as indicated by Figure

12. The principal additions were at least 12 new buildings; the changes were largely in vehicle/van locations.

FORWARD INSTRUMENTATION SITE, A-2

This site, located 4.9 nm northeast of Site A-1 and surrounded by a firebreak, consists of a probable observation/control building item 1, Figure 13); a building measuring 15 by 10 feet (item 2); a building measuring 20 by 10 feet (item 3); and an unidentified object which is connected by cable to the probable observation/control building. This building is 15 feet high, with a parapet and two unidentified objects on its flat roof. Outside the firebreak at this site is a revetment of unidentified function.

The only apparent changes observed between are the addition of one building (item 3) and the unidentified object, although the photography is of poor quality and a detailed comparison cannot be made.

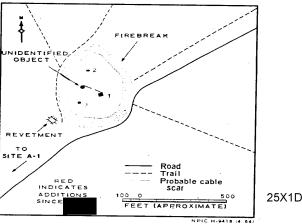


FIGURE 13. FORWARD INSTRUMENTATION SITE, A-2.

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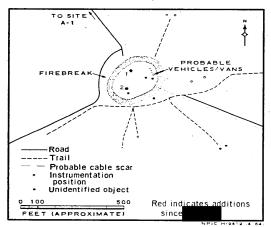


FIGURE 14. FORWARD INSTRUMENTATION SITE, A-3.

Road Trail Probable cable scar Unidentified object 100 0 500 FEET (APPROXIMATE) VEHICLE/VAN ON MOUND PROBABLE TANK RED INDICATES ADDITIONS SINCE

FIGURE 15. FORWARD INSTRUMENTATION SITE, A-4.

FORWARD INSTRUMENTATION SITE, A-3

This site is located 5.1 nm southeast of Site A-1 and is enclosed by a firebreak. The site contains a probable observation/control building, 20 feet square (item 1, Figure 14); a building measuring 20 by 10 feet (item 2); and five probable vehicles/vans. Six unidentified objects are in the area. Five small instrumentation positions visible in can no longer be positively identified. The probable observation/control building appears to be identical to the one at Site A-2. Two unidentified objects and a probable pole or mast are on its roof.

The only apparent significant change revealed by a comparison of photography is the addition of one building (item 2).

FORWARD INSTRUMENTATION SITE, A-4

This site is located 9.9 nm northeast of Site A-1, at the end of the northern leg of the

modified "V" (Figures 11 and 15). It is enclosed by a firebreak, which has been slightly expanded since The site consists of at least three buildings, the largest measuring 30 by 20 feet (item 1, Figure 15); a structure measuring 15 by 10 feet (item 2); a probable cylindrical tank; a vehicle/van on a mound; a revetment; two probable earth mounds; two excavations; and several unidentified objects. there were what appeared to be four, and possibly six, small possible instrumentation areas (not shown) outside the firebreak, apparently connected by possible cables or trails and so located that four of them formed the corners of a rhombic configuration surrounding the site and measuring 1,750 feet on a side. These areas are not visible on the photography. A detailed comparison between the photography is not possible because of the obliquity and poor quality of the earlier

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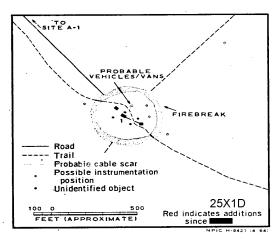
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FIGURE 16. FORWARD INSTRUMENTATION SITE, A-5.

FORWARD INSTRUMENTATION SITE, A-5

This site is located 9.9 nm southeast of Site

A-1, at the end of the southern leg of the modified "V" (Figures 11 and 16). The site resembles Site A-4, although no outlying possible instrumentation areas can be identified on either photography. The site is enclosed by a firebreak and contains four buildings, two of which are new, and two probable vehicles/vans. Four possible instrumentation positions are in the area. Three unidentified objects visible in are no longer evident in the largest building at the site (item 1, Figure 16) measures 30 by 20 feet.

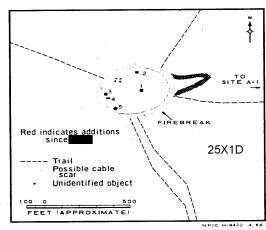


FIGURE 17. PROBABLE REAR INSTRUMENTATION SITE, A-6.

PROBABLE REAR INSTRUMENTATION SITE, A-6

This site is located approximately 1.7 nm west of Site A-1 (Figures 11 and 17). The site is enclosed by a firebreak, which has been extended to the northeast since the lt contains a probable observation/control building, 20 feet square (item 1, Figure 17), which appears identical to those at Sites A-2 and A-3; a small flatroofed building, 15 feet square (item 2); another small building (item 3); a probable building (item 4); an unidentified structure (item 5); and four unidentified objects. The probable observation/control building has three unidentified objects on its roof.

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REFERENCES

PHOTOGRAPHY

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MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0235-22HL, 4th ed, May 63, scale 1:200,000 (SECRET)

REQUIREMENT

CIA. DDI ORR E R-841 59

CIA. DDI/ORR/E/R-84/59 Supplement

CIA. DDI. OSI. R-114. 62

NPIC PROJECT

JN-44. 59 (partial answer)